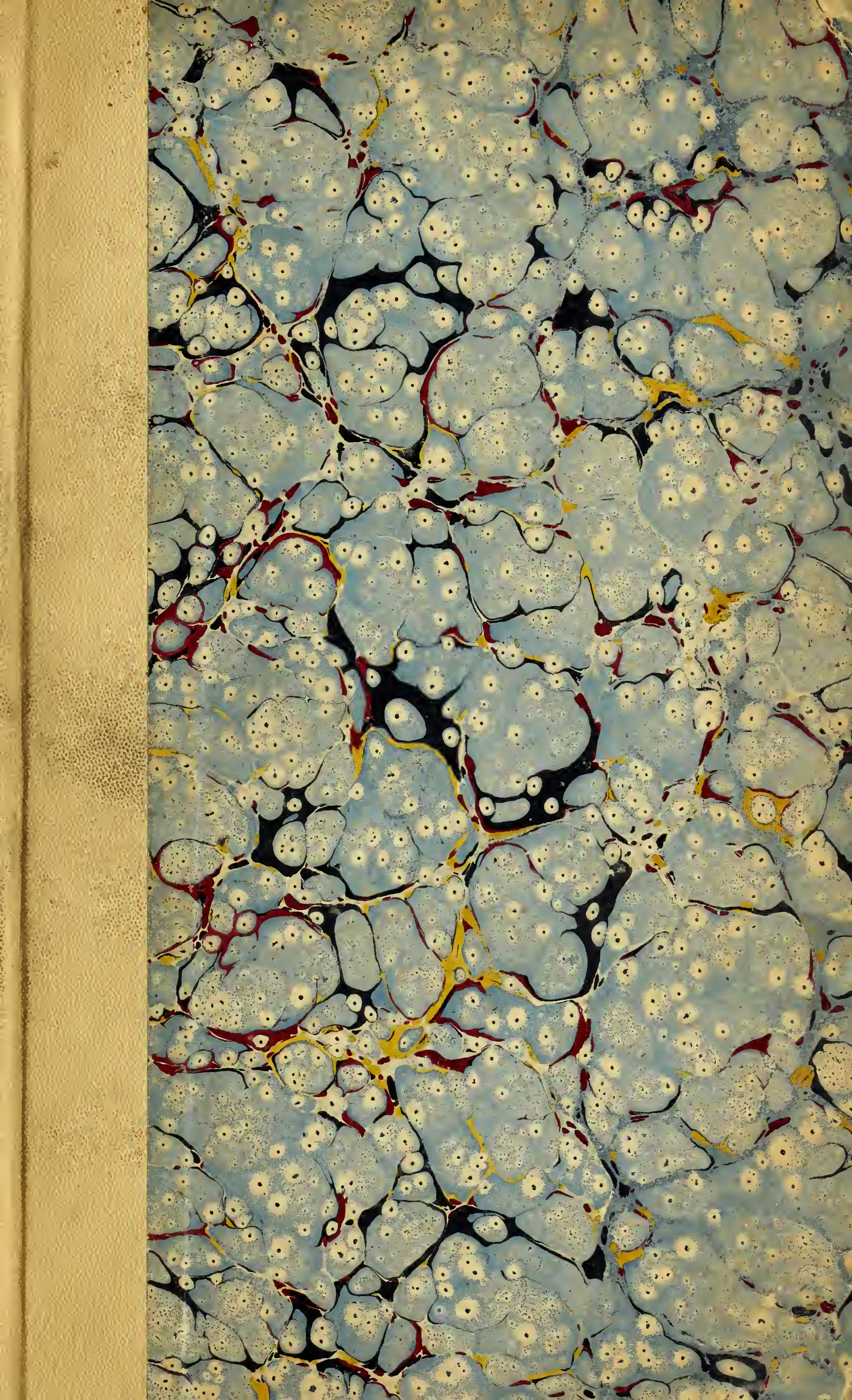

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On October 1st, *Imperial Folio, price One Guinea, Part I., of*

THE PHYSICAL ATLAS;

A SERIES OF MAPS

ILLUSTRATING

*217818

THE GEOGRAPHICAL DISTRIBUTION OF NATURAL PHÆNOMENA.

BY

HENRY BERGHAUS, LL.D., F.R.G.S.,

REGIUS PROFESSOR OF GEODESY, BERLIN, AND PRINCIPAL OF THE GEOGRAPHICAL INSTITUTE, POTSDAM;

AND

ALEXANDER KEITH JOHNSTON, F.R.G.S.,

GEOGRAPHER AT EDINBURGH IN ORDINARY TO HER MAJESTY; HONORARY MEMBER OF THE GEOGRAPHICAL SOCIETY, BERLIN; AND EDITOR OF "THE NATIONAL ATLAS."

> "L'inspection pure et simple d'une carte bien faite apprendra en quelques instans plus de Géographie Physique que ne pourraient le faire de longues et pénibles lectures."—PERPOT.

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CONDITIONS OF PUBLICATION

I. The work will comprise Thirty Maps, imperial folio size (25 inches by 20), engraved and coloured in a style similar to the Maps in Johnston's "National Atlas."

II. It will be issued every alternate Month, at One Guinea each—Three Maps to form a Part.

III. Suitable letter-press descriptions will be inserted in each Part.

IV. The Maps will not be published in any consecutive order, as regards selection of subject, but the paging will be so arranged as to admit of being properly bound at completion; and a copious Index will be given with the last Number.

V. The work will be completed in Ten Numbers, the periods of publication being strictly adhered to.

CHIEF SUBJECTS TO BE TREATED OF IN THE PHYSICAL ATLAS.

I.—INORGANIC NATURE.

1.—Meteorology and Magnetism.

1. Temperature.—Showing Isothermal Lines or Lines of Equal Heat.
2. The Winds.—Showing the Distribution of Passage-Winds, Hurricanes, Tyfoons, &c.
3. Rain and Snow.—Showing the Yearly Amount falling over the Globe.
4. Rain and Snow.—Showing the Yearly and Daily Amounts for Europe.
5. Magnetism.—The Polarizing Structure of the Atmosphere.

2.—Hydrology.

1. Physical Chart of Atlantic Ocean.
2. Physical Chart of Indian Ocean.
3. Physical Chart of Pacific Ocean.
4. Tidal Map of Europe.
5. River Map of Europe and Asia.
6. River Map of America.

3.—Geology.

1. Mountain Systems of Europe.
2. Mountain Chains in Europe and Asia.
3. Map of the Glacier Regions.
4. Mountain Chains in North America.
5. Mountain Chains in South America.
6. Geological Map of Europe.
7. Geological Map of England.
8. Geological Map of Scotland.
9. Regions of Earthquakes and Volcanos over the Globe.
10. Specialia of Volcanic Girdle in Atlantic Ocean, &c.

II.—ORGANIC NATURE.

Phytology and Zoology.

1. Distribution of Food-Plants over the World.
2. Distribution of Plants in Horizontal and Perpendicular directions.
3. Distribution of Animals.
4. Distribution of Quadrupeds.
5. Distribution of Birds.
6. Distribution of Fishes.
7. Distribution of Reptiles and Snakes.
8. Distribution of Man—Europe.
9. Distribution of Man—British Islands.

EXPLANATORY OBSERVATIONS

REGARDING

THE PHYSICAL ATLAS.

The object of this Atlas is to exhibit the Natural Phænomena of the Earth in their Geographical Distribution, and as further elucidated by the discoveries of Experimental Science. The application of Mapping to such subjects involves an extent of design much more comprehensive than is ordinarily understood in this country by the term *Atlas.* Conventional usage has restricted this phrase to the delineation of the Earth's surface, as marked by the divisions of land and water, and to the enumeration of the places contained in the former—a limitation of meaning which conveys an inadequate impression of the cosmopolitan range which properly appertains to Geography. Strictly speaking, this science essays to describe the Globe, including, under the designation, the three elements of Air, Earth, and Water; and, without encroaching on the boundaries of other departments of science, it will be found that Geography, in this its true acceptation, touches on almost every portion of the circle of human knowledge. Wherever the system of the Earth exhibits variety in original constitution, or variety in the manner in which the spontaneous action of natural phænomena affects that constitution, it becomes the province of Geography to expound these changes in every possible way that can be brought to bear on human speculations and pursuits. Under the two great heads of Inorganic and Organic Nature, into which the Maps of the Physical Atlas are proposed to be divided, will be found almost all the subjects included under the denomination of the "Applied Sciences;" whilst from that harmony which connects all kinds of knowledge, one with another, and which Bacon regards as its strength, there are few of the "Mixed Sciences" which are not more or less illustrated in the different Maps.

For imparting information, or for retaining what may already be possessed, those means are calculated to be most successful which readily commend themselves to the eye. Hence ordinary Geographical Maps convey more rapid and accurate knowledge regarding the positions of places, and their relative distances from each other, than can be done by the most elaborate verbal description; but the inventive genius of Professor Berghaus has imparted a significance to symbolical representation, transcending all the anticipations which have been formed regarding the capabilities of the art. The contents of the many volumes which formerly were the sole depositories of information regarding the different kingdoms of nature, have been condensed and reproduced in a graphic shape, in his Physical Atlas, with a conciseness, precision, completeness, and promptitude of expression altogether unattainable by any agency previously employed. And not only has this been the case in the reproduction of the reading matter contained in Books, but the process has been extended to the transmutation of the masses of statistical data expressed in the Tabular enumerations of works of reference. The elegant substitute of Linear Delineation registers the most complicated results in a perspicuous form, and affords inexhaustible facilities for recording the continued advances of science. In the emphatic language of the late President of the Royal Geographical Society, "Professor Berghaus has made the progress of science visible"—he has mapped out the length and breadth of philosophic research, and shown what it has done, and what it has left undone, in expounding the physical constitution of the Globe.

The Physical Atlas has been the labour of many years; and in addition to scientific qualifications of the highest order, and an intimate acquaintance with the writings and discoveries of Brewster, Sabine, Jameson, Whewell, Greenough, Humboldt, Von Buch, Arago, and other distinguished names in modern research, Professor Berghaus has had facilities for the accurate and extensive execution of the undertaking beyond what any other individual could be expected to possess. Geography forms a part of the course of education prescribed to all persons preparing for public service in Prussia; and with that sedulous attention to the cultivation of physical philosophy, which characterizes the German mind, the whole of the military force and mercantile marine of the Prussian Government are expected to report minutely on the geographical condition of every country which they visit; and from his position as Principal of the National Geographical Institute, the most valuable reports and surveys have been made under the special direction of Professor Berghaus, and with reference to the completion of his arduous task.

In the "National Atlas," Mr Johnston presented the British public with some specimens of this meritorious work, which had the effect of eliciting earnest requests from members of the Geographical Society, and other learned bodies, to publish an English edition of the whole; and in compliance with their wishes, this important publication is now about to be commenced. The documents, which will be found in another part of this Prospectus, will evince the interest excited by the work, as well as authoritatively indicate the superior manner in which the present edition will be produced.

A liberal selection from the designs and copious MS. and letter-press descriptions of Professor Berghaus will constitute the basis of the new Atlas—a copyright arrangement having been made with him for the purpose; but instead of being a reprint from the original plates, the Maps will not only be larger in size, and more complete, but will contain the latest corrections from his own hand; and in addition to this, Maps on subjects not treated of by Professor Berghaus will be constructed by Mr Johnston, under the superintendence of competent writers, in order that the whole may be in unison with the state of science in Britain up to the period of publication.

No theories founded on mere hypothesis will be introduced. All the Maps, so far as can be ascertained, will embody the results of actual observation and experiment. Indeed, the plan of Linear Delineation provides, to some extent, a guarantee against crude speculation, as it compels all systems to assume a definite shape, readily susceptible of direct examination as separate truths, or relatively, as they are in consonance with cosmical laws universally admitted. There will, however, be introduced on all suitable occasions, such inductive data as seem to point at the solution of unexplained phænomena—a course which, it is presumed, is not beyond the proper sphere of the work, and which may not be unattended with advantage to scientific inquiry.

But the predominating rule, both in the selection and treatment of subjects, will be *Utility*, in the widest sense of the term. The projectors do not wish to deal with Science for abstract purposes; they wish to deal with it as developing the resources of Nature, and as guiding Art in adapting these to the exigencies of Man. They, therefore, solicit attention to this Atlas, as a repertory of ascertained facts and principles, bearing directly on many of the most important departments of human occupation. To the Political Economist, Man of Letters, Merchant, Manufacturer, Navigator, and Tradesman, the work will be of great practica advantage; while to the Professor and Teacher it cannot fail to be o inestimable service, in materially facilitating the important business of education.

SYNOPTICAL VIEW OF THE MATTER CONTAINED IN MAPS OF THE FIRST AND SECOND PARTS.

All the matter enumerated below is either graphically represented, or inserted in a tabular form in the different Maps ; but additional information on all the subjects will be given in the descriptive letter-press contained in each Part.

MAP I.—GEOLOGY, No. 1.

Subject.—The Mountain Systems of Europe.

Constructed from the data of Bredsdorff, Olsen, Ami Boué, Marmara, &c., containing

1. *Mountain Ranges.*
   - Alps and Pyrenees.
   - Carpathians and Apennines.
   - British, French, German, Grecian, and Turkish Ranges.
2. *Perpendicular Extent of Mountains and Table Land.*
   These are indicated by contour lines, each of which respectively represents 500 and 1000 feet.
3. *Horizontal Areas.*
   These are accurately indicated by the adoption of varied depths of shading.

MAP II.—GEOLOGY, No. 2.

Subject.—The Mountain Chains of North America.

Constructed principally from Humboldt.

1. *Mountain Chains.*
   - Oregon or Rocky Mountains.
   - Sea Alps of California.
   - Sea Alps of North-West Coast, in their supposed connection with the Cordillera of Sonora.
   - Ozark Mountains.
   - Alleghany Mountains.
   - Mountains in West India Islands.
2. *Table Lands, Plains, and Mountain Slopes.*
3. *Volcanic Groups.*
   - Mexico.
   - Guatemala.
   - Honduras and Nicaragua.
   - Antilles and Aleutian Isles.

MAP II.—*Continued.*

4. *Plan of the Volcano of Jorullo*—as surveyed by Humboldt.

5. *Map of Trinidad,*
   Showing Position and Extent of its Mud Volcanoes.

6. *Section of Table Land of Mexico.*

7. *Junction of Atlantic and Pacific Oceans.*

   The parts of the Isthmus of Central America suitable for this purpose, as suggested by the best authorities, are all indicated.

⁂ Throughout the whole of this Map culminating points and other elevations are given in English feet.

MAP III.–HYDROLOGY, No. 1.

Subject.—PHYSICAL CHART OF THE ATLANTIC OCEAN.

Constructed from Humboldt, Rennell, Lartigue, Horsburgh, Purdy, Romme, and from Returns and Journals of Prussian Mercantile Marine, &c.

1. *Currents.*

   Florida Gulf Stream.
   Main Equatorial.
   North African.
   Southern Atlantic.
   Brazil.
   Cape Hoorn.
   Cape of Good Hope.
   Rennell's,—with their several Branches and Counter-Currents—the directions of the whole being indicated by Arrows.

2. *Drift Currents.*

   North Atlantic.
   North-East and South-East Trade Winds.

3. *Velocity of the Gulf Stream.*

   Showing the velocity, in geographical miles, in each month of the year, at the different parts of its course—distinguishing the number of observations, and the maximum, minimum, and average velocity deduced.

4. *Comparative Table of the Velocity of the Gulf Stream and other Atlantic Currents.*

5. *Fucus Banks.*

6. *Limits of the Floating Position of the Polar Ice in May and June.*

7. *Temperature.*

   Temperature of the water in summer and winter, with the average amount.
   Delineation of Warmth Equator, showing its northerly position in reference to the Terrestrial Equator.
   Variety of temperature in connection with the different currents.
   Comparative temperature of the Gulf Stream and adjoining Ocean.
   Position in which the warm water of the Gulf Stream has been found.

Map III.—*Continued.*

8. *Navigators' Tracks.*

Date.	Name.	From.	To.
1492.	Columbus.	Portugal.	West Indies.
1774.	Furneaux.	Rio de Janeiro.	Round Cape Horn.
1775.	Cook.	do.	do.
1785.	La Perouse.	do.	do.
1791.	Marchand.	do.	do.
1797.	Humboldt.	Spain.	South America.
1802.	Horsburgh.	England.	East Indies.
1803.	Krusenstern.	Rio de Janeiro.	Round Cape Horn.
1803.	Lisianzkoij.	do.	do.
1803.	Beaufort.	do.	do.
1820.	Freycinet.	do.	do.
1822.	Duperrey.	Rio de Janeiro.	Round Cape Horn.
1826.	Beechey.	do.	do.
1826.	Bougainville.	do.	do.
1828.	Beechey.	do.	do.
1829.	Foster.	do.	do.
1831.	Biscoe.	do.	do.

9. *Tracks of Merchant Vessels.*

Date.	Vessel.	From.	To.	No. of Days.
1823.	Mentor.	Cuxhaven.	New York.	26
	Mentor.	Jamaica.	Elsinore.	50
	Elisa Louise.	I. of St Thomas.	Cuxhaven.	46
1826.	Christian,	Showing Southern Course to America.		
	Elisa Louise,	Showing Course to West Indies.		
1829.	Princess Louise.	China.	Hamburg.	
1826.	Princess Louise.	Europe.	Valparaiso.	
	————.	Course to North America late in the year.		
1828.	Curaçao *steam sh.*	Rotterdam.	Surinam.	26

With the exception of the voyage of Columbus, the position of each vessel every day at noon is given; and in the case of Humboldt, the temperature of the sea is quoted throughout the course of the track. The voyages to and from Europe are signified by different colours.

10. *Depth of Ocean.*

Wherever ascertained, the depth of the Ocean is given in fathoms.

11. *Sand Banks.*

These are given with great copiousness; and wherever ascertained, the minimum depth, in fathoms, is quoted.

12. *Rocks, Dangers, &c.*

13. *Volcanic Eruptions in the Sea.*

14. *Track Bottles.*

Lines are inserted, showing the positions where bottles have been thrown in, and where they have been picked up.

MAP IV.–HYDROLOGY, No. 2.

Subject.—PHYSICAL CHART OF THE INDIAN OCEAN.

Constructed from Horsburgh, Boscawen, Krusenstern, &c.

1. *Temperature.*

   Temperature of the water at different parts of the Ocean.
   Position of the Oceanic Warmth Equator, extending on both sides of the Line.

2. *Currents.*

   Currents of the Ocean, with Counter-Currents, and their velocity in geographical miles, the direction being marked by Arrows.

3. *Winds.*

   Direction of Winds.
   Direction of Monsoons, with periods of rainy and dry seasons.
   Limits of Passage Winds.
   Districts of Mauritius Hurricanes, with dates of occurrence, extent and axes of curves.

4. *Passages from Europe to India.*

   Inner Passage, between Madagascar and Africa.
   Eastern Passage, outside of Madagascar.
   Boscawen's Passage, near the Mauritius.
   Middle Passage.

5. *Ocean Routes, as regulated by the Monsoons.*

   Great Route from Europe to China during S. W. Monsoon.
   Great Route to China during N. E. Monsoon.
   Route to Madras and Bengal in S. W. Monsoon.
   Route to Madras and Bengal in N. E. Monsoon.
   Route to China during N. E. Monsoon.
   Southern Route from Bengal and Madras to Bombay in S.W. Monsoon.
   Northern Route in July.

The Routes are given from actual voyages, the progress of each day's sailing being marked.

6. *Steam-boat Track to Bombay by the Red Sea.*

7. *Sailing Tracks through the Indian Ocean.*

   Eight of these are inserted, in which the daily progress of each vessel and the direction of the Currents are given.

MAP V.–METEOROLOGY, No. 2.

Subject.—HYETOGRAPHIC OR RAIN MAP OF EUROPE.

Constructed from the Hygrometrical Observations of Schouw, Balbi, Kaemtz, Lampadius, &c.

1. *Yearly Amount of Rain.*

   This is indicated in a general form by shading, but more particularly by curved lines, representing the yearly amount of rain, between 10 and 100 inches, falling in given districts.

MAP V.—*Continued.*

2. *Seasons of Rain.*

   Province of Summer Rains.
   Province of Autumn Rains.
   Province of Winter Rains.

3. *Summer Rains.*

   The per-centage which these bear to the yearly quantity of rain is also represented by a novel system of notation.

4. *Yearly Number of Rain and Snow Days.*

   Wherever ascertained, these are given in figures, with the addition of the average amount falling in each day, expressed in hundredth parts of an inch.

5. *Rain Winds.*

   The Winds which usually accompany rain are marked by distinctive signs.

6. *Snow.*

   Approximate Equatorial Line within which snow falls in Europe.

7. *Table Lands.*

   The mean elevation of the principal Table Lands and Plains are given with the view of demonstrating the connection subsisting between their altitudes and the amount of rain which falls in their neighbourhood.

MAP VI.—ETHNOGRAPHY, No. 2.

Subject.—THE ETHNOGRAPHY OF GREAT BRITAIN AND IRELAND. By Dr Gustaf Kombst, F.R.N.S.C., M.H.S.P.S., &c.

1. General Remarks relative to the *Physical*, *Mental*, and *Moral* characteristics of different races of men, more especially of the *Celtic* and *Teutonic* varieties of the Caucasian species.
2. Distribution of the Celtic and Teutonic varieties over the surface of Great Britain and Ireland, Topographical and Historical.
3. Table showing the amount of *Pure* and *Mixed* Blood in Great Britain and Ireland.
4. Local distribution of the two races according to Counties.
5. Remarks on the Religious, Political, and Social Character of the *Celtic* and *Teutonic* populations of Great Britain and Ireland.
6. Languages and Dialects spoken in Great Britain and Ireland.
7. Measurements relative to the size of Body, form of Skull, &c., of the *Celtic* and *Teutonic* populations of Great Britain and Ireland.

COMMUNICATIONS

REGARDING

THE PHYSICAL ATLAS.

EXTRACT FROM MR MURCHISON'S PRESIDENTIAL ADDRESS TO THE ROYAL GEOGRAPHICAL SOCIETY, 1844.

"It was justly observed by Mr Greenough, in his last anniversary address to the Society in May, 1841, that 'the only sound basis for Geography, in general, is Physical Geography; all kinds of special Geography being mere grafts upon this original stock.' The truth of the observation must be so evident to all who consider the subject, as not to require that I should now enlarge upon it. Yet Physical Geography withal has never been studied, till of late years, as it deserves to be; and, I am sorry to add, that it has made slower progress in our own than in almost any other country. It is, therefore, with peculiar satisfaction I am enabled to announce the publication of a work well calculated to call attention to the Science of Physical Geography. Mr Alexander Keith Johnston of Edinburgh, during a tour of inspection to the several geographical and cartographic establishments of the Continent, has made arrangements with M. Berghaus for the publication, in English, of that gentleman's 'Physical Atlas.' Of this valuable and most interesting work we have already seen a few sheets; they are larger than those published in Germany by M. Berghaus, and engraved and coloured in the most beautiful manner. The work will consist of thirty plates, each accompanied, on an average, by two pages of letter-press. The principal divisions of the subjects are Meteorology and Terrestrial Magnetism—Geology—Hydrography—Zoological Geography and Anthropology—and Phyto-Geography, or the distribution of plants. Each of these subjects will be again subdivided, so as to give a complete view of all the many important facts of Physical Geography. To the original Maps of Professor Berghaus will also be added others by some of the most eminent philosophers of Edinburgh. On the whole, Mr Johnston's 'Physical Atlas' will not only be unique in this country, but most useful to the science we cultivate, and highly creditable to the zeal and enterprise of its spirited publisher."

REV. DR WHEWELL, *Master of Trinity College, Cambridge.*

"I have to offer my very sincere thanks for the instructive and elegant set of Physical Maps which I have just received, and which you announced to me some days ago.

"They appear to me to contain knowledge which it is interesting and useful to have put in such a form; and I am glad if anything which I have done has contributed to their publication."

SIR DAVID BREWSTER, *Principal of St Andrew's University.*

"These Maps on *Physical Geography* are exceedingly instructive and interesting, and the knowledge which they convey is not to be found in any other Atlas. The descriptive and explanatory letter-press contains much valuable and original information."

COLONEL JACKSON, *Secretary of the Royal Geographical Society.*

"I cannot sufficiently commend your translation and publication of Berghaus' Atlas of Physical Geography; it was very much wanted, and will, I trust, greatly contribute to the popularizing of a branch of Geography totally neglected in this country, though of the highest interest."

MR JAMESON, *Professor of Natural History in the University of Edinburgh.*

"There cannot be a question as to the importance and great utility of an Atlas, and a series of plans and sections, illustrative of Physical Geography, particularly if executed in the beautiful style, and with the accuracy which so eminently distinguish those you have already published. The want of such an Atlas in this country for schools, travellers, and men of science in general, I have for years regretted, during my courses of lectures on Physical Geography, delivered in the University, and therefore rejoice to find that you, in conjunction with Professor Berghaus, intend to publish such a work.

"You, I trust, will find that no school where the Science of Geography is taught, and no public or private library of any consequence, will be without it. I, therefore, expect that you and Professor Berghaus will set to work with your accustomed energy, and thus procure for Edinburgh the distinguished honour of having been the first to publish in this island an Atlas illustrative of Physical Geography, brought up to the present state of this beautiful and interesting branch of knowledge."

DR TRAILL, *Professor of Medical Jurisprudence in the University of Edinburgh.*

"I have long regretted the want of such a publication, and I consider this as supplying a great desideratum in British Geographical Science.

"The Map of Isothermal Lines of the illustrious Humboldt is the most perfect yet published, and cannot fail to be highly prized by all engaged in speculations connected with the temperature of our globe. The Map of Aerial Currents is equally valuable to the Meteorologist.

"The Meteorologist, the Botanist, and the Political Economist, are equally interested in your survey of the principal vegetables used as the food of man. The Ethnographic Map of Europe is most curious and instructive, and has done all that it is possible to represent in a single Map. Your proposed plan of a larger work on Physical Geography, seems to me very desirable, and I think would be acceptable to the public."

GENERAL SIR THOMAS MAKDOUGALL BRISBANE, BART., P.R.S.E.

"I beg to acquaint you that I have carefully examined your Maps in illustration of Physical Geography, which I consider a work of great merit and labour. I cannot but congratulate you on your success in an undertaking that forms a great desideratum to our knowledge of the globe, and that you have far surpassed anything of the kind that has previously appeared.

"I feel confident, the further you extend your researches into this department of science, you will increase the obligations of all cultivators of natural knowledge, and the acceptability of such a work to the scientific public of Great Britain."

THE EARL OF CATHCART (late LORD GREENOCK), V.P.R.S.E.

"I shall look forward with much interest to the early completion of the Atlas of Physical Geography, to the full extent contemplated by Professor Berghaus and yourself, for which you will be justly entitled to the thanks of all the friends of Geography in Britain, who, I am very certain, will unanimously agree with me, in appreciating at its proper value so useful a contribution to our knowledge of what may be truly estimated as the most attractive department of natural science."

EDINBURGH NEW PHILOSOPHICAL JOURNAL.

"These beautiful, accurate, and admirably engraved Maps and Illustrations, are deserving of every praise and encouragement."

EXTRACT FROM ADDRESS OF THE PRESIDENT OF THE ROYAL GEOGRAPHICAL SOCIETY OF LONDON, 1843.

"The Physical Atlas of H. Berghaus has nothing equal or similar to it in any country; it renders the progress of Geographical Science *visible;*—and I feel great satisfaction in stating that, through the enlightened enterprise of Mr A. K. Johnston, Geographer to the Queen at Edinburgh, we shall be put in possession of it in an English dress. Some of the sheets have already appeared, and will tend materially to increase the interest felt amongst us in the Science of Geography."

Lately Published, in Imperial Folio, Half-Bound, Russia, Price Eight Guineas,

The National Atlas

OF

HISTORICAL, COMMERCIAL, AND POLITICAL GEOGRAPHY,

CONSTRUCTED FROM THE MOST RECENT AND AUTHENTIC SOURCES.

BY

ALEXANDER KEITH JOHNSTON, F.R.G.S.,
GEOGRAPHER AT EDINBURGH IN ORDINARY TO HER MAJESTY.

Assisted by Dr Heinrich Berghaus, Professor of Geodesy, Berlin;
and Dr Gustaf Kombst, F.R.N.S.C., M.H.S.P.S., &c.

The National Atlas is respectfully recommended to public attention—

I. As being the only Atlas, on a large scale, which has been projected in Britain for several years past.

II. As being engraved from a series of Original Drawings, in which the Geographical Intelligence is brought down to the month of publication.

III. As containing Maps of the large size of twenty-five inches in length, and twenty inches in breadth, engraved and coloured in the most elaborate style of art.

IV. As embodying information connected with General Geography, Commerce, Statistics, History, Navigation, and Physics, of a kind adapted to the use of Men of Letters, as well as to those engaged in public or Mercantile Life.

V. As being a Work which has received the cordial approval of the most Eminent Men of Science in the country, as well as of the more influential Critical Journals.

CRITICAL OPINIONS.

"Having examined many of the Maps of the *National Atlas*, I have no hesitation in saying, that they are as accurate in their geograpical details as they are beautiful in their execution."—*Sir David Brewster.*

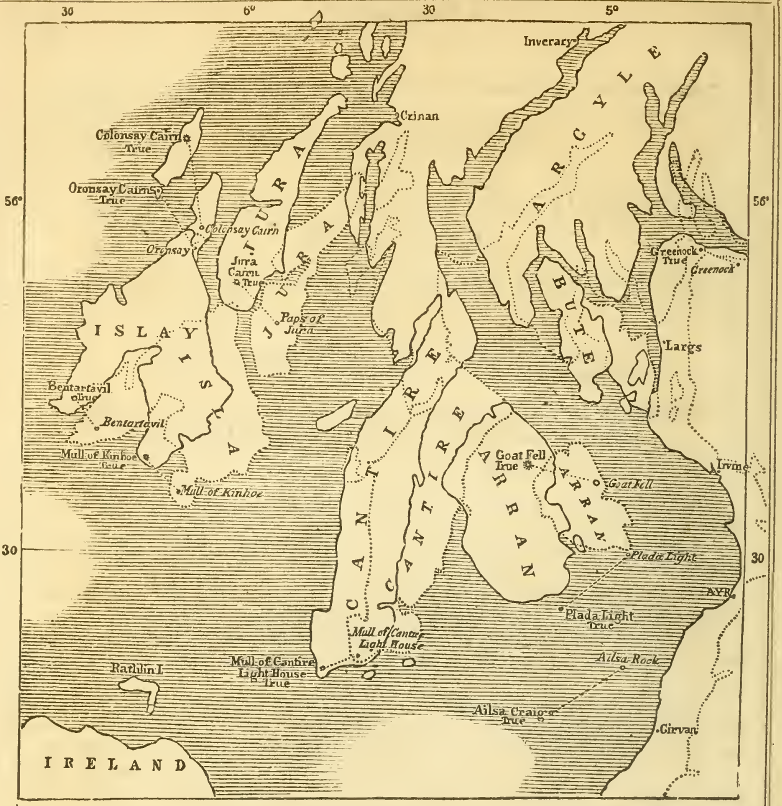
"Those who are not familiar with the places referred to in the History of the French Revolution, will frequently find a reference to Maps of great service; and the military student of Napoleon's campaigns in Germany and France will see the theatre of war admirably delineated in Mr Johnston's Maps of those countries."—*Alison's History of Europe.*

"The *National Atlas* is truly a splendid publication, and fully deserves not only the distinctive name it bears, but also national patronage."—*Literary Gazette.*

Edinburgh: John Johnstone, and W. & A. K. Johnston. Glasgow: James Lumsden & Son; and R. Weir. London: Simpkin, Marshall, & Co.; Whittaker & Co.; W. Smith; and R. Groombridge. Dublin: John Cumming.

THE PHYSICAL ATLAS.

JOHNSTON'S NATIONAL ATLAS.



SKETCH MAP

OF PART OF THE

WEST COAST OF SCOTLAND

SHOWING ERRORS IN EXISTING CHARTS.

The coasts in continuous lines and the places marked in ROMAN letters, show the correct positions, as laid down for the first time in the NATIONAL ATLAS.

The dotted lines of coast, with the names marked in *Italics*, show the extent of errors in previously existing Maps and Charts.

THE above Sketch refers to an article on "Trigonometrical Surveying, and its application to correct the Maps and Charts of the Hebrides, by William Galbraith, M.A." &c., inserted in the *Nautical Magazine*, and afterwards reprinted in the *Highland Society's Journal of Agriculture*, February, 1844.

Mr Galbraith states, that he made "a considerable number of observations, Astronomical and Geodetical, by which he was enabled to correct some flagrant errors in our best Maps and Charts;" errors so important, "that the master of a vessel, trusting to the Charts in ordinary use, must almost with certainty be wrecked, if his reckoning be right." Mr Galbraith having "communicated his observations to Mr A. K. Johnston, for the purpose of improving his Map of Scotland," the whole of the inaccuracies referred to have, for the first time, been rectified in

JOHNSTON'S NATIONAL ATLAS.